<u>REMARKS</u>

This amendment is intended as a full and complete response to the non-final Office Action mailed February 19, 2003. In the Office Action, the Examiner notes that claims 1-20 are pending, of which claims 1-19 stand rejected and claim 20 is withdrawn from prosecution. There is an objection to the specification. By this amendment, claims 1 and 14 have been amended; and claims 2-13 and 15-19 continue unamended.

In view of both the amendments presented above and the following discussion, the Applicants submit that none of the claims now pending in the application are obvious under the provisions of 35 U.S.C. §103. Thus, the Applicants believe that all of these claims are now in allowable form.

It is to be understood that the Applicants, by amending the claims, do not acquiesce to the Examiner's characterizations of the art of record or to applicants' subject matter recited in the pending claims. Further, Applicants are not acquiescing to the Examiner's statements as to the applicability of the art of record to the pending claims by filing the instant responsive amendments.

Election/Restrictions

Applicants affirm that, on January 16, 2003, Applicants provisionally elected the claims of group I (claims 1-19) with traverse. Claim 20 is within group II and is withdrawn from prosecution.

To the extent that this restriction requirement is maintained by the Examiner, the Applicants reserve the right to subsequently file divisional applications in order to prosecute the inventions recited in the non-elected group of claims.

Specification

The Examiner has objected to the disclosure at page 8, line 7 for failing to indicated the application number of U.S. Patent Application incorporated by reference. In response thereto, Applicants have amended the paragraph beginning on page 8, line 7, as indicated above. Further, Applicants note that a typographical error indicated the filing date of U.S. Patent No. 09/359,560 as July 23, 1999. Applicants have amended the application, as shown above, to indicate the correct filing date of July 22, 1999. As



such, Applicants request reconsideration and withdrawal of the objection to the specification.

In addition, Applicants have corrected typographical errors in the paragraph beginning on page 19, line 1. The paragraph has been amended to indicate that lead line 1462 points to the frame store unit, as depicted in FIG. 14, of the application.

Rejections under 35 U.S.C. §103

The Examiner rejected claims 1-9, 11-12, 14-16 and 19 under 35 U.S.C. 103(a) as being unpatentable over Naimpally (U.S. Patent 5,619,337, issued April 8, 1997) ("Naimpally") in view of Yanagihara (U.S. Patent No. 5,859,949, issued January 12, 1999) ("Yanagihara"); claims 10, 17, and 18 as being unpatentable over Naimpally in view of Yanagihara and further in view of Adams (U.S. Patent No. 6, 044, 396, issued March 28, 2000); and claim 13 as being unpatentable over Naimpally in view of Yanagihara and further in view of Alexander (U.S. Patent No. 6,177,931, issued January 23, 2001). Applicants traverse the rejections.

A. Claim 1

The Examiner rejected claims 1-9, 11-12 under 35 U.S.C. 103(a) as being unpatentable over Naimpally in view of Yanagihara. Applicants traverse the rejection.

Naimpally discloses an apparatus which separates one program from a multiprogram transport stream for recording on a digital VCR ("DVCR"). The DVCR demultiplexes transport packets for a program from the transport stream and records the packets in transport stream format. On playback, the DVCR reconstructs an MPEG transport stream which contains only the desired program.

The Examiner contends that the Naimpally apparatus "[i]nherently ... comprises non-realtime content source (data content source) configured to provide non-realtime content; a non-realtime encoder (encoder 144)" Applicants disagree with the Examiner. Applicants direct the Examiner's attention to Naimpally at column 5, lines 40-41 and Naimpally's FIG. 2. Specifically, Naimpally only discloses that encoder 144 is a conventional MPEG data encoder. Nowhere does Naimpally disclose that encoder 144 encodes non-realtime data. "The inherency of an advantage and its obviousness are entirely different questions. That which may be inherent is not necessarily known.



Obviousness cannot be predicated on what is unknown." *In re Shetty*, 566 F.2d 81, 195 U.S.P.Q. 753, 757 (C.C.P.A. 1977). Inherency may not be established by probabilities or possibilities. The mere fact that a certain thing may result from a given set of circumstance is not sufficient." *Hansgirg v. Kemmer*, 102 F.2d 212, 40 U.S.P.Q. 665, 667 (C.C.P.A. 1939); *In re Oelrich and Divigard*, 666 F.2d 578, 212 U.S.P.Q. 323, 326 (C.C.P.A. 1981). In view of the above-cited case law, Applicants respectfully submit that Naimpally does not teach, or suggest that the encoder 144 encodes non-realtime data.

Naimpally discloses an encoder for the encoding of data. However, Naimpally fails to teach or suggest that the encoder encode the data for the purpose of "storage of realtime content in a grid page database wherein said realtime content comprises intracoded slices and predictively-coded slices stored separately within said grid page database." as claimed by Applicants.

At least for the above-reasons, Applicants' invention is not rendered obvious in view of Naimpally. The addition of Yanagihara does not correct the deficiencies of Naimpally.

Specifically, Yanagihara discloses a method for transmitting, recording, and reproducing of digital data and time information in transport packets using a compression ration. In the disclosed method, a data packet which contains time information is time compressed and the time information is extracted fro the time compressed data packet. A system clock is synchronized with the extracted time information and is multiplied by a predetermined compression ratio to produce replacement time information which replaces the time information in the time compressed data packet. The time compressed data packet that contains the replacement time information is modulated and transmitted or recorded.

Applicants claim 1, recites in pertinent part:

"a non-realtime content source configured to provide non-realtime content;

a non-realtime encoder coupled to the non-realtime content source and configured to encode the non-realtime content into encoded non-realtime content;

a realtime content source configured to provide realtime content;

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a realtime encoder coupled to the realtime content source and configured to encode the realtime content into encoded realtime content for storing said realtime content in a grid page database wherein said realtime content comprises intra-coded slices and predictively-coded slices stored separately within said grid page database;"

Applicants disclose an apparatus for encoding a transport stream. Applicants' claim 1, as indicated above, positively recites that the apparatus includes "a non-realtime encoder coupled to the non-realtime content source and configured to encode the non-realtime content into encoded non-realtime content." In addition, claim 1 also includes "a realtime encoder coupled to the realtime content source and configured to encode the realtime content into encoded realtime content for storing said realtime content in a grid page database wherein said realtime content comprises intra-coded slices and predictively-coded slices stored separately within said grid page database."

Presuming arguendo that Yanagihara does re-timestamp transmitted data, Yanagihara is also silent with respect to those features indicated above that Naimpally lacks. Applicants respectfully submit that there is no suggestion by either Naimpally or Yanagihara to combine the two references. As such, Naimpally and Yanagihara, either individually or combined, do not produce an apparatus having Applicants' non-obvious features.

As such, Applicants submit that claim 1 is not obvious and fully satisfies the requirements under 35 U.S.C. §103 and is patentable thereunder. In addition, dependent claims 2-13 (which depend from independent claim 1) are also not obvious, at least for their dependency upon independent claim 1. Therefore, Applicants respectfully request reconsideration and withdrawal of the obviousness rejection against claims 1-14.

B. <u>Claim 14</u>

The Examiner rejected claims 14-16 and 19 under 35 U.S.C. 103(a) as being unpatentable over Naimpally in view of Yanagihara. Applicants traverse the rejection.

The deficiencies of Naimpally and Yanagihara have been discussed in section A herein. For brevity those deficiencies will not be repeated.

Applicants' claim 14 is a method claim which contains features similar to Applicants' claim 1. Applicants' claim 14, recites in pertinent part:





"encoding realtime content to generate encoded realtime content for storing sald realtime content in a grid page database wherein said realtime content comprises intra-coded slices and predictively-coded slices stored separately within said grid page database;

encoding non-realtime content to generate encoded non-realtime content:"

As indicated in section A herein, Naimpally and Yanagihara either individually or combined do not contain an encoder encoding realtime content "for storing said realtime content in a grid page database wherein said realtime content comprises intra-coded slices and predictively-coded slices stored separately within said grid page database," as claimed by Applicants' claim 14.

As such, Applicants respectfully submit that claim 14 is patentable and is not rendered obvious by Naimpally in view of Yanagihara. In addition, dependent claims 15, 16, and 19 (which depend from independent claim 14) are also patentable, at least for their dependency upon independent claim 14. Therefore, Applicants respectfully request reconsideration and withdrawal of the obviousness rejection of claims 14-16 and 19.

C. Claims 10, 17 and 18

The Examiner has rejected Claims 10, 17 and 18 under 35 U.S.C. §103(a) as being unpatentable over Naimpally in view of Yanagihara and further in view of Adams (U.S. Patent No. 6,044,396, issued March 28, 2000) ("Adams"). Applicants traverse the rejection.

Applicants have presented the deficiencies of Naimpally and Yanagihara in section A herein. For brevity, Applicants will not repeat those deficiencies in this section. Applicants respectfully submit that claims 10 (which depends from independent claim 1); and 17 and 18 (which depend from independent claim 14) have already been distinguished from Naimpally and Yanagihara. As such, Applicants further submit that claims 10, 17, and 18 are not obvious in view of Naimpally and Yanagihara. The Examiner has also cited Adams to support the obviousness rejection of claims 10, 17, and 18. Applicants submit that Adams does not correct the deficiencies of Naimpally and Yanagihara.



Adams discloses an apparatus and method for utilizing available bit rate in a constrained bit rate channel. In Adams, The multiplexer includes a number of video buffers for receiving encoded video streams from the media servers and an application buffer for receiving the application data stream from the network controller. However, because of the real time constraints on the display of video data, the video streams must be given higher priority than the application data. If a video packet is lost or delayed, such an error will cause a noticeable effect on the video display. In contrast, the application or control information transmitted is typically not as sensitive to packet delay or loss. Accordingly, a selector decides which data stream is to be given access to a channel of the network. The selector allocates the application data stream to a low priority access to the network. Adams specifically recites, that

"[t]he selector removes information from the application buffer when all of the video buffers are empty. When the application buffer 402 itself is relatively empty, as indicated by the application buffer fullness B_A being less than a predetermined application buffer threshold value T_A ($B_A < T_A$) the channel rate control circuit 1002 will increase the output rate of the network controller 204. If the application buffer 402 remains relatively empty, as indicated by $B_A < T_A$, then the channel rate control circuit 1002 will cause the network controller 204 rate to continue Increasing, until the application buffer 402 becomes relatively full, as indicated by $B_A > T_A$. At that point, the network controller rate will be decreased, and will continue to decrease as long as the buffer 402 remains relatively full. When the buffer 402 again becomes relatively empty, the network controller rate will again be increased. In this manner, the rate of the nonvideo data is controlled so as to fill available bandwidth in the 6 MHz multiplexed channel" See Adams at column 7, lines 10-26.

In other words, Adams adjusts the rate of information being sent to its application encoder based upon the availability of the application encoder.

Applicants' dependent claim 10, recites in pertinent part, "encoding rate for the non-realtime content is further determined based on a maximum bit rate anticipated for the encoded realtime content." Adams does not teach or suggest the feature of Applicants' claim 10. As such, Naimpally, Yanagihara, and Adams either individually or in any combination do not render Applicants' claim 10 obvious.

Applicants' claim 17 recites, in pertinent part, "the bit rate for the encoded non-realtime content is further based on a maximum bit rate anticipated for the encoded realtime content." In addition, Applicants' claim recites, in pertinent part, "allocating the



bit rate for the encoded non-realtime content among a plurality of pages of non-realtime content." Applicants have explained, at length, the operation of Adams. Clearly Adams does not encode non-realtime content based upon a maximum bit rate anticipated for encoded realtime content; or allocate a bit rate for the encoding of non-realtime content among a plurality of pages of non-realtime content, as claimed by Applicants' claims 17 and 18, respectively. In view the operation of Adams, Applicants respectfully submit that Adams does not teach or disclose modification of Adams in such a way that leads to Applicants' invention. As such, Naimpally, Yanagihara, and Adams either individually or in any combination do not render Applicants' claims 17-18 obvious.

As such, the Applicants submit that claims 10, 17 and 18 are not obvious and fully satisfy the requirements under 35 U.S.C. §103 and are patentable thereunder. Therefore, the Applicants respectfully request reconsideration and withdrawal of the obviousness rejection of claims 10, 17, and 18

D. Claim 13

The Examiner has rejected claim 13 under 35 U.S.C. 103(a) as being unpatentable over Naimpally in view of Yanagihara and further in view of Alexander et al. (U.S. Patent No. 6,177,931, issued January 23, 2001) ("Alexander"). Applicants traverse the rejection.

Applicants have presented the deficiencies of Naimpally and Yanagihara in section A herein. For brevity, Applicants will not repeat those deficiencies in this section. Claim 13 (which depends from independent claim 1) in not rendered obvious by Naimpally and Yanagihara (either individually or in any combination) at least for its dependency upon claim 1. The addition of Alexander does not correct the deficiencies of Naimpally and Yanagihara.

Alexander discloses a system and method for displaying and recording control interface. However, there is nothing in Alexander which indicates that the realtime and non-realtime contents are displayed in the same frame.

Inherency may not be established by probabilities or possibilities. The mere fact that a certain thing may result from a given set of circumstance is not sufficient." Hansgirg v. Kemmer, 102 F.2d 212, 40 U.S.P.Q. 665, 667 (C.C.P.A. 1939); In re Oelrich and Divigard, 666 F.2d 578, 212 U.S.P.Q. 323, 326 (C.C.P.A. 1981).

In addition, there is not suggestion to combine Naimpally, Yanagihara, and Alexander. However, presuming arguendo that the references were combined, they would not result in a system or method containing the features of Applicants' claim 13. Applicants respectfully submit that Naimpally, Yanagihara, and Alexander either Individually or in any combination do not render Applicants' claim 13 obvious.

As such, the Applicants submit that claim 13 is not obvious and fully satisfies the requirements under 35 U.S.C. §103 and is patentable thereunder. Therefore, the Applicants respectfully request reconsideration and withdrawal of the obviousness rejection of claim 13.

CONCLUSION

Thus, the Applicants submit that none of the claims, presently in the application, is obvious under the provisions of 35 U.S.C. §103. Accordingly, both reconsideration of this application and its swift passage to issue are earnestly solicited.

If, however, the Examiner believes that there are any unresolved issues requiring adverse final action in any of the claims now pending in the application, it is requested that the Examiner telephone <u>Eamon J. Wall, Esq. or Frank Tolin, Esq.</u> at (732) 530-9404 so that appropriate arrangements can be made for resolving such issues as expeditiously as possible.

Respectfully submitted,

Dated: 6/6/03

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